Units of Study and Assessment – Mathematics		
Criteria	Y/N	Revisions Needed
I. Course Content A. Are all grade level and appropriate course standards included? • K – 8: Compare with the grade level standards http://www.corestandards.org/Math/ • High School Courses: Compare with the standards listed in the PARCC Model Content Framework for each course http://parcconline.org/sites/parcc/files/PARCCMCFMathematicsNovember2012V3_FINAL_0.pdf		
II. Unit Organization A. Are the Major/Supporting/Additional Standards well-balanced throughout the curriculum? • Major standards are continuously taught throughout the year and account for the majority of instructional time • Supporting and additional standards are intentionally and meaningfully incorporated with the content of major standards • Review the Model Content Framework which identifies Major/Supporting/Additional standards and suggests content linking http://parcconline.org/sites/parcc/files/PARCCMCFMathematicsNovember2012V3_FINAL_0.pdf B. Is there a coherent placement of the Standards across units, which takes into account pacing and within-grade content dependencies? • PARCC Model Content Frameworks suggest standard		

linking and sequence for coherence of content http://parcconline.org/sites/parcc/files/PARCCMCFMathematicsNovember2012V3_FINAL_0.pdf C. Are the standards that are assessed on the PBA included in units prior to the assessment administration date? • Check evidence statements for standards that will be assessed on the PBA https://www.parcconline.org/assessment-blueprints-test-specs The NJ Model Curriculum can be used as a reference/example http://www.nj.gov/education/modelcurriculum/math/		
III. Student Learning Objectives Reflect the Rigor of the Standards The following is an exercise with guiding questions to look at learning objectives aligned to standards and should be repeated for at least all major content standards at each grade level (including all course standards will constitute a more thorough review) A. Compare with PARCC Performance Level Descriptors (PLDs) http://www.parcconline.org/math-plds Do the objectives require students to perform at a Level 4: Strong Command? Example: 6.NS.1-2 *Applies and extends previous understandings of multiplication and division to solve word problems involving division of fractions by fractions.*		

B. Compare with the NJ Model Curriculum End of Unit Assessments (EUA) http://www.nj.gov/education/modelcurriculum/math/ Will the objectives prepare students to successfully complete items included on the EUA? Ex: for 6.NS.1 A farmer receives a shipment of $40\frac{1}{2}$ kilograms of animal food. The animal food comes in bags weighing $13\frac{1}{2}$ kilograms each. Part A What is the value of $40\frac{1}{2} \div 13\frac{1}{2}$? Part B What does your solution from Part A represent in the context of the problem? C. Compare with the PARCC Practice Test http://practice.parcc.testnav.com/# Will the objectives prepare students to successfully complete the EOY assessment? and the PBA? (PBA Coming Fall 2014) D. Complete steps A – C for all standards that have been identified as major content in all grades and courses in the Model Content Frameworks.		
IV. Standards for Mathematical Practice A. Are the Standards for Mathematical Practice meaningfully and appropriately reflected in the student learning objectives? http://www.corestandards.org/Math/Practice/ • Compare with the PARCC Evidence Statements https://www.parcconline.org/assessment-blueprints-test-specs Will students be able to successfully meet the evidence		

statements? Ex: *6.C.3 Base arithmetic explanations/reasoning on concrete referents such as diagrams (whether provided in the prompt or constructed by the student in her response), connecting the diagrams to a written (symbolic) method.* *Content Scope: Knowledge and skills articulated in 6.NS.1*		
V. Benchmark/Unit Assessments A. Are the assessment items measuring the full scope and intent of the standards? • Use the PARCC Evidence Statements for the End-of-Year (EOY) and Performance-Based Assessments (PBA) to determine if the assessment items are measuring the intent of the standards. https://www.parcconline.org/assessment-blueprints-test-specs Ex. Criteria for items aligned to 6.RP.3d *i) Pool should contain tasks with and without contexts* *ii) Tasks require students to multiply and/or divide dimensioned quantities* *iii) 50% of tasks require students to correctly express the units of the result.* *iv) Expectations for ratios in this grade are limited to ratios of non-complex fractions. (See footnote, CCSS p 42.) The initial numerator and denominator should be whole numbers.* *v) Items for assessing standard 6.RP.3d should require the use of Mathematical Practices 2,5,6,7,8* *vi) Students can use a calculator for items assessing standard 6.RP.3d* B. Are the item types varied to fully assess content and practices? Compare with items types using PARCC description of Task Types Ex. http://www.parcconline.org/samples/mathematics/grade-6-mathematics		

VI. Special Needs Populations in Units of Study A. Do your units of study consider and appropriately plan for the needs of *all* students? This includes: • Students with disabilities • English language learners • Below grade-level learners • Grade-level learners • Above grade-level learners In quality units of study, planning for special needs populations should be infused throughout the curriculum, not as a "separate" category in the unit document. Resources for curriculum differentiation can be found at: • Universal Design for Learning: http://www.cast.org/udl/ • NJ English Language Learner Scaffolded Model Curriculum: http://www.nj.gov/education/modelcurriculum/math/ (Each individual unit includes a scaffolding document) • Instructional Supports and Scaffolds for Success in Implementing the Common Core State Standards: http://www.nj.gov/education/modelcurriculum/math/success.shtml		

Instructional Materials and Lesson Plans		
Criteria	Y/N	Revisions Needed
VII. Instructional Materials and Tools A. Initial guiding questions (1) Do classroom materials focus where the standards focus? (2) Do classroom materials include a balance of the three components of rigor (conceptual understanding, procedural skill and fluency, and application)? (3) Do classroom materials meaningfully connect the Standards for Mathematical Practice with the content standards? • To answer these questions, evaluate classroom materials using the PARCC Publisher's Criteria and the Instructional Materials Evaluation Tool from Student Achievement Partners o Grades K-8 : PARCC Publishers' Criteria http://www.corestandards.org/assets/Math_Publishers_Criteria_K-8_Summer%202012_FINAL.pdf SAP's Instructional Materials Evaluation Tool http://achievethecore.org/page/287/imet-mathematics-grades-k-8-detail-pg o High School Courses PARCC Publisher's Criteria http://www.corestandards.org/assets/Math_Publishers_Criteria_HS_Spring%202013_FINAL.pdf SAP's Instructional Materials Evaluation Tool http://achievethecore.org/page/288/imet-mathematics-high-school-detail-pg		

B. Do the tasks and formative assessments in instructional materials accurately measure the scope and rigor of the standards? For example, are students given the opportunity to demonstrate Performance-Level Descriptor (PLD) Level 4 (Strong) and 5 (Distinguished) command? • Use the PLDs to compare the rigor needed for students to perform at Level 4 (Strong) and Level 5 (Distinguished) command http://www.parcconline.org/math-plds Ex. 6.NS.4: *Finds greatest common factors and least common multiples. In most cases, uses the distributive property to rewrite the sum of two whole numbers with a common factor as a multiple of a sum of two whole numbers with no common factor.*		
VIII. Lesson Plans A. Do most units and/or lessons meet the criteria to be rated exemplary on the EQuIP Rubric? a. Use the EQuIP Rubric to evaluate instructional units and/or lessons. http://www.achieve.org/files/EQuIPmathrubric-06-17-13_1.pdf b. Professional Learning for use of the EQuIP Rubric http://equipmodules.achieve.org/1/story.html		

Glossary/Acronym Key:

EOY – End-of-Year Assessment (PARCC)

EQuIP – Educators Evaluating the Quality of Instructional Products (Achieve)

EUA – End of Unit Assessment (NJ Model Curriculum)

PARCC – Partnership for the Assessment of Readiness for College and Career

PBA – Performance-Based Assessment (PARCC)

PLD – Performance-Level Descriptor (PARCC)

SAP – Student Achievement Partners

Student Learning Objectives – student learning goals/objectives aligned to the Common Core State Standards (names may vary by district)